



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/816,007	03/31/2004	Timothy A. Hindle	H0003993--1622	9568
128	7590	09/09/2005	EXAMINER	
HONEYWELL INTERNATIONAL INC. 101 COLUMBIA ROAD P O BOX 2245 MORRISTOWN, NJ 07962-2245			SCHWARTZ, CHRISTOPHER P	
			ART UNIT	PAPER NUMBER
			3683	

DATE MAILED: 09/09/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

10/816,007

Applicant(s)

HINDLE ET AL.

Examiner

Christopher P. Schwartz

Art Unit

3683

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 17 May 2005.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-25 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-25 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

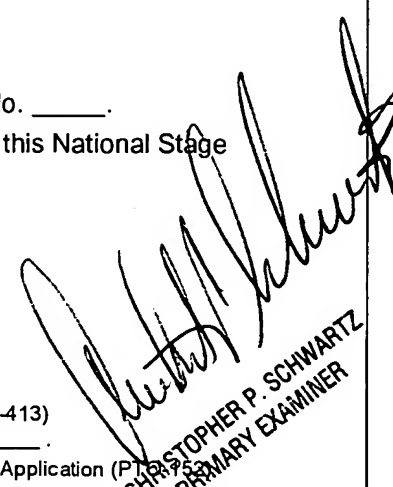
- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_.

- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_.
- 5) ☐ Notice of Informal Patent Application (PTO-925)
- 6) ☐ Other: \_\_\_\_\_.

  
CHRISTOPHER P. SCHWARTZ  
PRIMARY EXAMINER

### **DETAILED ACTION**

1. Applicant's response filed May 17, 2005 has been entered. Simply to the point applicant's should reconsider the breadth of the independent claims.

#### ***Continued Examination Under 37 CFR 1.114***

2. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on May 17, 2005 has been entered.

#### ***Claim Rejections - 35 USC § 103***

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to

consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

5. Claims 1-25 rejected under 35 U.S.C. 103(a) as being unpatentable over Davis et al. '070 in view of Kawamata or Jones.

Regarding claims 1,8,16 and 21, as broadly claimed, Davis discloses a damper and isolator with which applicants are well familiar and upon which the present invention seems to be based.

Lacking is a discussion of the effective fluid mass and how this parameter may be adjusted to function as a fourth "tunable" parameter.

It is notoriously well known in the art to tune fluid mounts and dampers to damp specific vibrational frequencies by varying the respective areas of fluid chambers, the cross sectional areas of fluid passages, the areas of pistons etc. and/or the use of different fluids with different densities, or other properties, to create, change, or make use of a fluid inertia effect. This is generally taught by Kawamata in column 4 or Jones in column 7 lines 37-50. Note the discussion of the "fluid slug" throughout the specification of Jones.

The ordinary skilled worker in the art would have it would have been obvious to one of ordinary skill in the art at the time of the invention to have adjusted at least one of these well known variable parameters in the device of Davis, as taught by either Kawamata or Jones, to provide a damper which makes use of fluid inertia to isolate a specific range of vibrations.

Regarding the rest of the claims these requirements are met in view of the explanation given above, the strong similarity of the features of the instant application with the Davis patent and the teachings of the references to Kawamata or Jones and the common knowledge in the art regarding the dimensional changes to the structure that may be made to take advantage of the damping capabilities of fluids.

### ***Response to Arguments***

6. Applicant's arguments with respect to claims 1-25 have been considered but are not persuasive. Applicant's primary argument is that the reference to Davis et al. '070 "... must teach or suggest the proposed combination". But that there is no teaching or suggestion in Davis to add a fourth tunable parameter based on an effective fluid mass. It is further argued that neither Kawamata or Jones teach a fourth parameter that uses the effective mass of the fluid to enhance vibration damping and isolation.

As stated in applicant's specification at page 3 paragraph [0008] "the ratio of the cross sectional area of the first fluid containment chamber and the second fluid containment chamber to the cross sectional area of a damping path is shown to produce an effective mass of fluid for vibration isolation". At the bottom of page 3 and paragraph [0009] it is stated "The effective fluid mass provides a fourth parameter for the isolation system, which can lead to improved performance as compared with a three parameter system". This seems to summarize the gist of the invention and applicant's arguments.

However, as stated previously above, and which goes to the heart of applicant's invention pursuant to their specification, it is notoriously well known in the art to tune

fluid mounts and dampers to damp specific vibrational frequencies by varying the respective areas of fluid chambers, the cross sectional areas of fluid passages, the areas of pistons etc. and/or the use of different fluids with different densities, or other properties, to create, change, or make use of a fluid inertia effect. This is generally taught by Kawamata in column 4 or Jones in column 7 lines 37-50. Note the discussion of the "fluid slug" throughout the specification of Jones. As the examiner recommended to applicant's in the previous Final action in paragraph 6 also note the references to Matsui et al. and Sugino et al. for their specific discussions of using the properties of fluids to create a damping effect. See also the discussion in Davis '508 col 2 lines 25-28.

Contrary to applicant's arguments the reference to Davis '070 does not have to expressly "teach or suggest the proposed combination", but the rationale to modify the reference may be expressly or impliedly contained in the prior art, or it may be reasoned from knowledge generally available to one of ordinary skill in the art, established scientific principles, or legal precedent established by prior case law. In re Fine, 837 F.2d 1071, 5 USPQ2d 1596 (Fed Cir 1988); In re Jones, 958 F.2d 347, 21 USPQ2d 1941 (Fed Cir. 1992).

Applicant's are encouraged again to review the references applied against the claims as well as the references to Matsui et al., Sugino et al. and Davis '508, especially col. 2 lines 25-28.

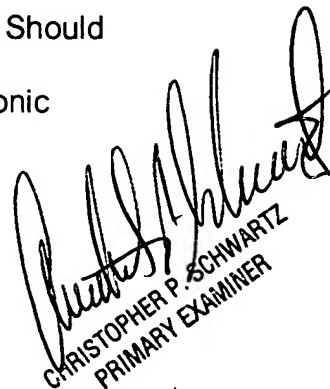
***Conclusion***

7. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Christopher P. Schwartz whose telephone number is 571-272-7123. The examiner can normally be reached on M-F 9:30-6:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Chuck Marmor can be reached on 571-272-7095. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Cps  
9/1/05

  
CHRISTOPHER P. SCHWARTZ  
PRIMARY EXAMINER